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Cremastinae (Hymenoptera, Ichneumonidae) from Italy and some adjacent regions

J. KOLAROV

Abstract: The Cremastinae fauna of Mediterranean area is not well studied. After identification of the Cremastinae materials, preserved in the Museo Regionale -Torino 31 species were established. From them 6 new species from the genera *Nothocremastus* DASCH and *Temelucha* FOERSTER are described. 3 species are new to the Greece fauna (in the text they are marked by an asteriks). Faunistic data for each species are given. The general distribution is mainly after HORSTMANN (1990), KASPARYAN (1981) and SEDIVY (1970 & 1971).

The Italian material is indicated by I (= Italy).

I am very indebted to Dr. P.L. Scaramozzino for the access to the materials from the above mentioned collection.

***Pristomerus africator* AUBERT & SHAUMAR 1978**

I: Varrgotti (Finali Lig) Liguria, 17.08.1984, 1 ♀.

Distribution: Egypt and Cote d'Ivoire.

***Pristomerus armatus* (LUCAS 1849)**

Morocco, Chechaonen, 18.05.1989, 1 ♀; *M. ioni*, Tizi in Test, Alto Atlante, 20.05.1982, 1 ♀; I: Piemonte (Asti Penango) Cioccaro, 11.07.1987, 2 ♀ ♀; Piemonte, Chianocco (TD), 23.07.1982, 1 ♀; Mafalda Molise, 31.07.1976, 1 ♀; Chianocco (TO), 4.07.1982, 1 ♂; Greece, Pili, 250 m. 18.06.1992, 1 ♂.

Distribution: Europe, North Africa, Turkey, Georgia, Armenia, Kazakhstan, Turkmenia, Uzbekistan, Kirgizia and Siberia - Tschibrusk region.

***Pristomerus kasparyani* NAROLSKY 1986**

I: *L. basilicata*, Maratea (PZ), 4.07.1987, 1 ♀.

Distribution: South-Western France, Italy, Hungary, Bulgaria and Ukraine.

***Pristomerus vulnerator* (PANZER 1799)**

I: S. Benedetto Belbo, 1.8.1971, 1 ♀, 23.8.1987, 1 ♂; Piemonte, Gorbagna, (A1) 28.4.1970, 1 ♂ and 1 ♀; 28.04.1976, 1 ♂; Piemonte, Costighole Saluzzoi (CN), 21.05.-10.06.1980, 1 ♀; Piemonte Albarascamsig, 1 ♀; Calamandrana, September 1981, 1 ♀.

Distribution: Europe, Turkey, Siberia, Japan and Korea.

***Dimophora evanialis* (GRAVENHORST 1829)**

I: Piemonte, Bienza Canevese (TO), 400 m, 15.08.-15.09.1985, 3 ♂ ♂ and 1 ♀. The same place, September-October, 1 ♀. Piemonte, P.N. lame del Sesia Albano Vercellese, 10.07.-6.08.1986, 3 ♀ ♀; Emilia Sivizzano (P.R.) 12.-15.09.1982, 1 ♀.

Distribution: Western Europe.

***Dimophora nitens* (GRAVENHORST 1829)**

I: Piemont, Bienza Canavese (TO), 400 m, 15.08.-15.09-1985, 1 ♀.

Distribution: Western Europe.

***Cremastus aegypticus* SZEPLIGETI 1905**

I: Sardegna, Aonesso, 20.08.1982, 1 ♂ and 1 ♀.

Distribution: Canarian Island, Corse, France, Italy, Greece and Egypt.

***Cremastus bellicosus* GRAVENHORST 1829**

I: Aisone, CN, 22.07.1986, 1 ♀; S. Benedetto Belbo, 21.08.1979, 1 ♀; 9.-23.09.1979, 1 ♀; Piemonte, Valdieri, (CU), 980 m, 8.08.-23.09.1986, 3 ♂ ♂ and 2 ♀ ♀; 23.09.-6.11.1986, 1 ♀; Sardegna, M. na di Sarso, July, 1981, 1 ♀. Piemonte, Candove, 400 m, 28.08.-29.09.1979, 1 ♂; 8.-28.08.1979, 4 ♂ ♂ and 1 ♀; Fermia, 24.05. (?), 1 ♀; Lombardia, Calolzio, Agosto, 1933, 1 ♂; Piemonte, Pietrabianka di Bussoleno, 900 m, 23.08.-27.09.1980, 1 ♀.

Distribution: Western Europe.

***Cremastus cephalotes* SEDIVY 1970**

I: S. Bartolomie Marc. Liguria, 12.06.1971, 1 ♂.

Distribution: Bulgaria, Greece and Italy.

***Cremastus crassicornis* THOMSON 1890**

I: Toscana, Orbetello, 21.06.1986, 1 ♀; J. Basilicata, Policaro-Basco, Pantano Bassi, 3.10.1986, 1 ♀; J. Pisa, August, 1975, 1 ♀; J. Piemonte, Aisone CN, 22.07.1986, 2 ♂ ♂.

Distribution: Europe.

***Cremastus geminus* GRAVENHORST 1829**

I: Piemonte, Monpantero, 1000 m, 10.06.1983, 2♂♂; Ag. Rocca di Mezzo, Piano di Pezza, 1500 m, 24.06.1988, 1♂ and 2♀♀.

Distribution: Western Europe and China.

***Cremastus gigas* HEINRICH 1953**

I. Pragelato, Piemonte, 24.06.1989, 1♀.

Distribution: Germany, Austria, Italy and Bulgaria.

***Cremastus spectator* GRAVENHORST 1829**

I: Piemonte, Condove, 400 m., 27.09.-16.10.1979. 1♀; Lazio, Monte Meta, Colle peponi, 800 m, 5.-7.10.1940, 2♂♂.

Distribution: Europe and Siberia - Irkutsk region.

***Nothocremastus scaramozzini* sp. n.**

Male: Front wing 3,9 mm, body 5,1 mm long. Head cubic, widened behind eyes (Fig. 1). Ocellus small, its diameter 0.59 as long as distance between lateral ocellus and eye. Frons concave behind antennal soccets, with median carina, raised laterally. Flagellum 29-segmented, postannellus 4,3 as long as wide. Face divergent downwards (7:8), coarse and dense punctured, clypeus rare punctured, 1,8 as wide as high. Gena 0,5 as long as basal width of mandible.

Thorax and propodeum coarse and dense punctured, upper third of pronotum with only separate punctures, lucious. Notaulus present, sternaulus absent. Pterostigma triangular, intercubitus 0,5 as long as distance between it and second recurrent vein. Nervulus interstitial, parallel vein reaching postnervulus little above middle. (Fig. 2). Legs moderately stout, hind femur 3,8 as long as wide, tibiae rather widened apically, longer spur of hind tibia as long as basal width of tibia. Correlation between hind tarsal segments as 32:20:14:10:11, tarsal claws pectinate at the base.

Areola and second lateral area of propodeum not limited, middle longitudinal carinae absent in its middle. Basal area triangular. First abdominal segment 1,2 as long as second, glymma long. Paramerae well visible (Fig. 3).

Black; middle of inner eye orbita and tegula yellow; clypeus, mandible, legs, except coxae and first trochanters, and second tergite except apically reddish; last tarsus darkened; outer eye orbita in the middle indistinctly brown.

Female unknown.

The species is well distinguished from all known species by widened behind head and lacking of middle part of median longitudinal carinae. By its concave frons the spe-

cies is close to *N. tobiassi* NAROLSKY, from which is distinguished by shorter wing and intercubitus, number and length of flagellar segments.

Holotype ♂, Morocco, Ain Leuh Tagoung, 1700 m, 29.-30.04.1987, leg. Scaramozzino, in Torino Museum.

***Temelucha confluens* (GRAVENHORST 1829)**

I: S. Benedetto Belto, Langhe Piemonte, 15.-22.07.1979, 1 ♀; Roma, 29.05.-30.05., 2 ♀ ♀; 15.05., 1 ♀; 9.06., 1 ♀.

Distribution: Europe.

***Temelucha elongata* sp.n.**

Male. Front wing 4,7 mm long. Body slender, head roundly restrictes behind eyes (Fig. 4). Postoccipit concave. Ocelli not enlarged, its diameter shorter than distance between lateral ocellus and eye (5:6). Occipital carina widely interrupted medially. Frons mat, raised laterally, with longitudinal median carina. Flagellum with 31-32 elongated segments, postannellus about 4,0 as long as wide. Face weakly punctured, convex in the middle. Clypeus moderately convex, with curved apical margin. Mandible tapered apically. Cheek weakly shorter than basal width of mandible (7:8).

Thorax elongated, 2,2 as long as high, moderately coarse punctured. Notauli weak, sternauli absent. Venation of wings very thin. Pterostigma moderately wide, radial vein straight. Intercubitus long, second recurrent vein slightly postfurcal. Outer hind corner of discoidal cell right. Parallel vein reaching postnervulus in its upper third (Fig. 5). Nervellus vertical, not intercepted, discoidella absent. Legs moderately slender, tibiae rather swollen. Hind femur 5,5 as long as wide. Correlation between hind tarsal segments as 48:26:18:10:9. Head and thorax covered with long and dense white hairs.

Propodeum elongated, almost right in lateral view. Area basalis with parallel lateral carinae. Areola 4,0 as long as wide apically (Fig. 6). First abdominal segment 1,2 as long as second. Postpetiolus narrow, with parallel lateral sides, about 2,0 as wide as petiolus.

Black: middle part of inner and outer eye orbita, tegula and upper surface of tibiae except basally and apically, second trochanters and femurs apically and front tarsal segments yellowish.

By elongated thorax the species resembles to *T. cylindrator* NAROLSKY, but distinguishes by the number of flagellar segments, small ocelli, venation of the wings, areolation of propodeum, slender legs, longer body and the coloration.

Holotype ♂, Morocco, Ain leuh Tagoung, 1700 m, 28.-30.4.1987. leg. Scaramozzino, in Museum Torino, Paratype, 1♂, from the same place, date and collector, in coll. Kolarov.

***Temelucha genalis* (SZEPLIGETI 1900)**

I: I. cm. celenza sul, Trigno, 29.06.1987, 1♂.

Distribution: Europe.

***Temelucha interruptor* (GRAVENHORST 1829)**

I. Piemonte, Cravanzana (CN) 555 m, Lambarda Noceivolo, 13.06.1979, 1♂; 29.07.1979, 1♂; 16.09.1979, 1♂; 10.06.1979, 1♂; 7.07.1979, 1♂; 10.09.1979, 1♂; 12.08.1979, 1♂; 5.08.1979, 1♂; 19.09.1979, 1♂; 29.06.1979, 2♂♂; Piemonte Levice (Cuneo), 22.08.1974, 1♂; Piemonte (Al.) Albarasca, 519 m, 3♂♂.

Distribution: Europe.

***Temelucha lucida* (SZEPLIGETI 1900)**

I: Basilicata p. te Masone Tursi Calanchi, 3.10.1986, 1♀; Piemonte, Torino, 16.06.1980, ex *Rhyacionia buoliana* Denn et Schiff., 1♂; Pz. Policaro, 1.07.1987, 1♀.

Distribution: Czechia, Hungary, Italy, Greece, Bulgaria and Moldavia.

***Temelucha lucidator* sp. nov.**

Front wing 6,9 mm, body 9,8 mm, ovipositor sheath 5,0 mm long. Head transverse, strongly restricted behind eyes (Fig. 7). Frons punctured, mat. Flagellum with 29-33 segments. Postannellus 3,1 as long as wide. Inner eye orbita weakly divergent downwards (40:43). Face and clypeus with curved front margin. Gena 0,73 as long as basal width of mandible.

Thorax dense punctured, notaulus, epomia and sternalus weak. Second recurrent vein postfurcal, outer hind angle of discoidal cell almost right. Discoidal cell 2,0 as long as front margin of brachial cell, nervulus interstitial. Hind femur 5,2 as long as wide. Correlation between hind tarsal segments as 60:31:20:10:14. Tarsal claws pectinate basally.

Propodeum short, curved in lateral view, rare and coarse punctured, areola almost smooth. Apical area transversely striated. Basal area narrowed behind, areola with parallel sides, 1,6 as long as wide, closed behind. Head and thorax covered with dense and white hairs.

First abdominal segment 1,2 as long as second, postpetiolus elipsoidal from above. Ovipositor tip weakly curved downwards.

Black; inner and upper half of outer eye orbita, gena partly, mandible, front lateral margin of mesonotum, notaular area, scutellum laterally to almost entirely and tegula yellow; legs except coxae and trochanters reddish, hind femur to entirely black; hind tibia paler medially, darkened in base and apically, tarsal segments darkened apically; pterostigma black-brown; III-VII tergites reddish apically.

Male. Ocellis not enlarged, distance between eye and lateral ocellus longer than diameter of ocellus. Yellow coloration more intensive - eye orbita, gena and scutellum entirely, clypeus laterally, mesonotum in greater part, upper part of pronotum, small spot on front middle of mesopleurum and coxae apically yellow.

It distinguishes from the similar *T. lucida* SZEPLIGETI by longer body, haired head and thorax, more slender and longer ovipositor and more poorly yellow coloration.

Holotype ♀, Morocco, Ain Leuh Tagoung, 1700 m, 29.-30.04.1987, leg. Scaramozzino, in Torino Museum. Paratypes 17♂♂ and 10♀♀, from the same place, date, collector and museum (1♂ and 1♀ in coll. Kolarov).

***Temelucha marocator* AUBERT 1977**

Morocco, Sous Taroudant, 22.05.1982, 1♂.

Distribution: Morocco.

***Temelucha notata* KOLAROV 1989**

I: Piemonte, To, Condove, 400 m, Malaise Trap. 8.-28.08.1979, 1♀.

Distribution: Italy and Bulgaria.

***Temelucha observator* AUBERT 1966**

I: Basilicata P. te Masone, Tursi Calanchi, 3.10.1986, 1♂; Piemonte, Aisone, CN, 22.07.1986, 1♂.

Distribution: Italy, Roumania, Crimea, Turkey, Izrael, Tunisia, Morocco and Egypt.

***Temelucha ocellaris* sp. nov.**

Front wing 6,3 mm long. Head strongly restricted behind eyes (Fig. 8). Ocellus large, lateral one almost touching eye. Frons concave, mat. Flagellum with 39-42 elongated segments, postannellus 3,8 as long as wide. Inner eye orbita weakly convergent downwards. Face moderately dense and coarse punctured, brilliant. Clypeus convex, rare punctured, with curved front margin. Gena 0,46 as long as basal width of mandible.

Thorax dense punctured lucious, pronotum and scutellum with rare punctures. Notaulus and epomia present, sternaulus weak. Justacoxal carina projected as a tooth above middle coxa. Pterostigma moderately wide, second radius straight. Intercubitus long,

discoidal cell more 2,0 as long as front side of brachial cell. Second recurrent vein almost interstitial, hind outer angle of discoidal cell right. Parallel vein reaching postnervulus a little above its middle, nervulus interstitial (Fig. 9). Interception of nervulus and discoidella unclear. Hind femur 5,4 as long as wide, correlation between hind tarsal segments as 67:34:25:15:15.

Propodeum short, weakly curved in lateral view. Area basalis triangular, areola 2,0 as long as wide apically, open behind; lateral and pleural area coarsely punctured, apical one strongly striated transversally.

First segment 1,2 as long as second, postpetiolus distinctly limited (Fig. 10).

Head and thorax yellow; postoccipit, space between ocelli, middle of face and clypeus, propleurae, three longitudinal stripes on mesonotum, upper half of meso- and metapleurae, mesosternum, basal, first and second lateral area, apical one and areola black; coxae and trochanters yellow, basally black; legs reddish, femurs yellow from above and apically, hind tibia darkened basally and apically.

First and second tergites black, apically red, following tergites orange with dark basal half.

Female unknown.

With interstitial second recurrent vein it is close to *T. tricolorata* SEDIVY, but differs by longer body, number of flagellar segments, narrowed behind eyes head, shorter gena, structure of propodeum and coloration of the body.

Holotype ♂, Espana, Almeria, Cabo de Gata, Rambla de Morales, 19.-20.04.1987, leg. Scaramozzino, in Torino Museum.

Paratype 1 ♂, from the same place, date and collector, in coll. Kolarov.

***Temelucha ophthalmica* (HOLMGREN 1858)**

I: Piemonte, Albarasca, 519 m, 1 ♂.

Distribution: Western Europe.

***Temelucha pagliani* sp. nov.**

Male. Front wing 3,9 mm long. Head roundly restricted behind (Fig. 11). Ocellus small, its diameter shorter than distance between lateral ocellus and eye (6:7).

Frons not concave, mat. Flagellum with 31 elongated segments, postannellus 4,1 as long as wide. Inner eye orbita weakly convergent downwards (15:14). Face mat. 2,9 as wide as high, convex in the middle. Clypeus strongly convex and curved apically, gena 0,4 as long as basal width of mandible.

Pronotum lucious, not punctured. Mesonotum coarse and rare punctured, mat. Mesopleurum rare and coarse punctured, lucious. Notaulus and lateral carina of scutellum well developed. Epomia present, sternaulus weak. Second radius straight. Discoidal cell 2,0 as long as brachial one. Second recurrent vein postfurcal. Nervulus interstitial, parallel vein reaching postnervulus above the middle. All tibiae moderately swollen, hind tarsal segments as 38:20:14:9:10.

Propodeum reaching middle of hind coxa. Areola parallel shaped, 2,5 as long as wide.

First abdominal segment 1,2 as long as second. Male clasper pointed apically (Fig. 12).

Yellow; flagellum except base from below, two longitudinal spots on mesonotum, upper half of mesopleura and metapleura, mesosternum, apical half of petiolus, I-V tergites apically and base of hind coxa brownish; legs except coxa and trochanters and clasper reddish, frons in middle, surface between ocelli, upper half of post-occiput, front third of middle lobe of mesonotum, propodeum, except third lateral and pleural area, base of first segment and postpetiolus, II-V tergites basally and VI-VII tergites almost entirely black; pterostigma brown.

Female unknown.

In the key of SEDIVY (1971) it runs to *T. shoenobius* THOMS., but diversifies by the convergent downwards face, shorter gena, narrowed behind head, longer discoidal cell, shorter areola and coloration of the body.

Holotype ♂, Italy, S. Benedetto Belbo, Langhe Piemonte I, 8.-13.07.1979, leg. Pagliano, in the Torino Museum.

***Temelucha thoracica* KOLAROV 1989**

* Greece, Xinohi, Kallidromon, 1000 m, 6.06.1992, 1 ♀.

Distribution: Bulgaria and Greece.

***Temelucha tibialis* sp. n.**

Male. Front wing 2,3 mm, body 3,5 mm long. Head weakly swollen, roundly narrowed behind (Fig. 13). Ocellus diameter almost as long as distance between lateral ocelli and eye. Frons weakly concave, mat. Flagellum 25-segmented, postannellus 4,3 as long as wide, subapical segments almost square. Inner eye orbitae parallel; face rare punctured, mat. Clypeus convex, with curved front margin and rare punctures. Gena 0,66 as long as basal width of mandible.

Thorax not elongated, 2,0 as long as high. Pronotum smooth, mesonotum and mesopleurum coarse and rare punctured, mesonotum 1,2 as long as wide. Notaulus, sternaulus and epomia very weak. Venation of wings thick, light brown. Second ra-

dus curved apically to front margin of wing, second recurrent vein postfurcal, hind outer angle of discoidal cell obtuse. Nervulus antefurcal, parallel vein reaching post-nervulus distinctly in its upper half (Fig. 14). Legs stout, hind femur 3,3 as long as wide, all tibiae swollen. Longer hind tarsal spur shorter than apical width of tibia. Correlation between hind tarsal segments as 20:10:7:4:6. Propodeum weakly curved in lateral view, areola parallel-shaped, open behind.

First segment 1,3 as long as second tergite.

Dorsolateral carinae reaching its middle. Postpetiolus distinctly separated from petiolus (Fig. 15). Paramerae as long as apical width of abdomen (Fig. 16).

Black brown with intensively yellow coloration on face, except small spot medially, clypeus, mandible, gena, scapus from below, frontal and vertex orbitae widely, prothorax, mesonotum except three longitudinal spots on each lobes, scutellum, tegula, lower half of mesopleurae, apical half of second and third lateral and pleural area, legs except base of hind coxa, petiolus except base and I-V tergites apically.

Female unknown.

It is distinguished from all known *Temelucha* species by unusually short spurs on hind tibiae. From the species with so small body, *T. anatolica* SEDIVI, it is discerable by colored venation of wings, not so wide pterostigma, areolation of propodeum and elongated paramerae.

Holotype ♂, Italia, Sardegna, M. na Sorso, 7.6.1981, leg. Manglia, in Torino Museum.

***Temelucha variipes* (GRAVENHORST 1900)**

I: S. Benedetto Belbo, Langhe Piemonte, 15.-22.07.1979, 5 ♀♀; 9.-23.09.1978, 6 ♀♀; 1.-21.08.1978, 1 ♀ Venezia, Alberoni, July, 1934, 1 ♀ 17.07.1976, 1 ♀ J. Piemonte, Aisone, (CN). 9.08.1985, 1 ♀; AD Kas Spiagia, 4.11.1983, 1 ♀; Int. Lagodivico Caprarcola, July-August, 1986, 1 ♀.

Distribution: Europa and Mallorca Isles.

***Eucremastus collaris* NAROLSKY 1990**

* Greece, Beozia, Bukisia (Spiaggia), 10.06.1983, 1 ♀.

Distribution: Greece, Georgia, Armenia and Nachichevansk.

***Euchremastus manni* (TSCHEK 1871)**

I: Piemonte, Argone, CN, 22.07.1986, 1 ♂.

Distribution: Spain, Italy, Greece, Turkey and Algeria.

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Address of the author: Dr. Janko A. KOLAROV,
Department of Zoology, Biological Faculty, University of Sofia,
8 Dragan Zankov Boul, 1421 Sofia, Bulgaria.

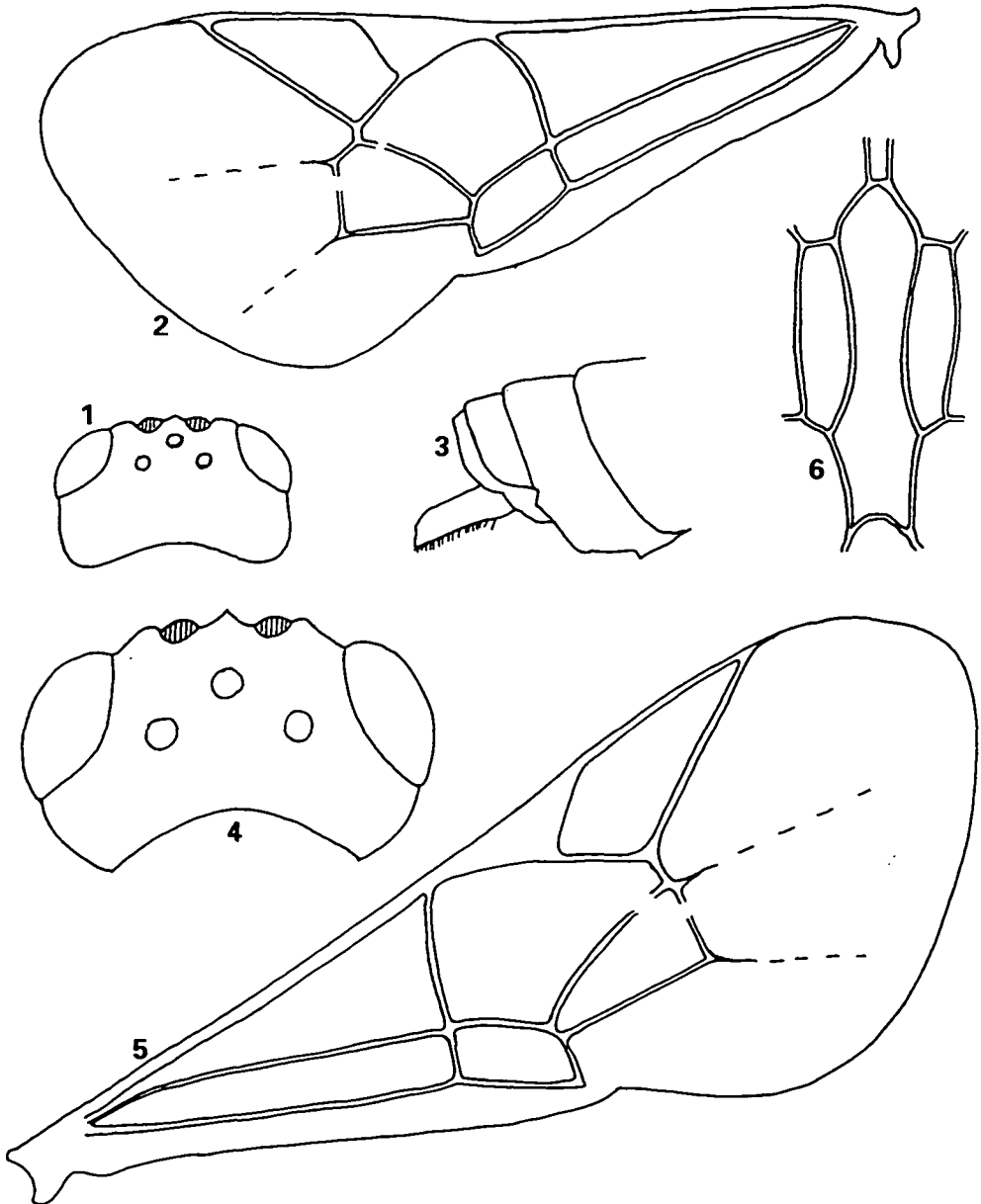


Fig. 1-3: *Nothocrema* *scaramozzini* sp. nov. - 1: Head from above; 2: Front wing; 3: Abdomen apically.

Fig. 4-6: *Temelucha* *elongata* sp. nov. - 4: Head from above; 5: Front wing; 6: Areolation of propodeum.